

Appl. No. 10/604,722
Amdt. dated April 11, 2005
Reply to Office action of January 12, 2005

AMENDMENTS TO THE CLAIMS

- 1 (currently amended): An image projection system comprising:
a light source for generating a light beam;
5 a reflective housing comprising an opening, the opening
having a diameter smaller than a maximum diameter of the
reflective housing, the reflective housing forming an
accommodating space, the light source installed inside
the accommodating space so that the light beam generated
10 by the light source substantially propagates along an
optical path through the opening away from the
accommodating space; and
an invisible-light reflector installed at a reflecting
position intersecting with the optical path outside the
15 opening of the reflective housing, a normal of the
invisible-light reflector and the optical path
intersecting to form a predetermined angle so that
invisible light of the light beam emitted from the opening
will be reflected back into the accommodating space;
20 wherein the predetermined angle formed by the normal of the
invisible-light reflector and the optical path is an acute
angle not equal to zero degrees, so that infrared rays of
the light beam reflected back into the accommodating space
by the invisible-light reflector will not focus on the
25 reflective housing.

- 2 (currently amended): The image projection system of claim 1,
wherein the reflective housing ~~[[is]]~~ comprises an elliptic
reflective housing, and the light source is installed at a

Appl. No. 10/604,722
Amdt. dated April 11, 2005
Reply to Office action of January 12, 2005

focal point of the elliptic reflective housing, and the optical path is a major axis of the elliptic reflective housing.

5 3 (cancelled)

4 (previously presented): The image projection system of claim
1, wherein the image projection system further comprising
a light tube connected to the light source, wherein the
10 infrared rays of the light beam reflected back into the
accommodating space by the invisible-light reflector will
not focus on the light tube.

5 (previously presented): The image projection system of claim
15 1, wherein the acute angle is smaller than 45 degrees.

6 (previously presented): The image projection system of claim
1, wherein the image projection system further comprises an
image module, the image module comprising a plurality of
20 controllable optical reflectors for modulating the light
beam passing through the invisible-light reflector to
generate a projecting beam containing an optical image,
wherein the light beam passing through the invisible-light
reflector does not comprise the infrared rays.

25 7 (previously presented): The image projection system of claim
6, wherein the image module is a digital micro-mirror device.

8 (currently amended): The image projection system of claim 1,

Appl. No. 10/604,722
Amdt. dated April 11, 2005
Reply to Office action of January 12, 2005

wherein the reflective housing ~~[[is]]~~ comprises a parabolic reflective housing, and the optical path is a parallel route by which the light beam propagates after being reflected by the parabolic reflective housing.

5

9 (currently amended): An image projection system comprising:
a light source for generating a light beam;

10 ~~[[an]]~~ a elliptic reflective housing comprising an elliptic reflective housing and a truncated conical section
comprising an opening, the opening having a diameter
smaller than a maximum diameter of the reflective housing,
the reflective housing forming an accommodating space,
the light source installed inside the accommodating space
so that the light beam generated by the light source
15 substantially propagates along a major axis of the
elliptic reflective housing through the opening away from
the accommodating space;

an image module comprising a plurality of controllable
optical reflectors for modulating the light beam to
20 generate a projecting beam containing an optical image;
and

an invisible-light reflector installed between the
reflective housing opening and the image module and at
a reflecting position outside the opening of the ~~elliptic~~
25 reflective housing at which the invisible-light
reflector intersects the major axis of the elliptic
reflective housing, a normal of the invisible-light
reflector and the major axis intersecting to form a
predetermined angle so that invisible light of the light

Appl. No. 10/604,722
Amdt. dated April 11, 2005
Reply to Office action of January 12, 2005

beam emitted from the opening will be reflected back into
the accommodating space;

wherein the predetermined angle formed by the normal of the
invisible-light reflector and the major axis is an acute
5 angle not equal to zero degrees, so that infrared rays of
the light beam reflected back into the accommodating space
by the invisible-light reflector will not focus on the
elliptic reflective housing.

10 10 (cancelled)

11 (previously presented): The image projection system of claim
9, wherein the image projection system further comprising
a light tube connected to the light source, wherein the
15 infrared rays of the light beam reflected back into the
accommodating space by the invisible-light reflector will
not focus on the light tube.

12 (previously presented): The image projection system of claim
20 9, wherein the predetermined angle is smaller than 45
degrees.

13 (previously presented): The image projection system of claim
9, wherein the image module is a digital micro-mirror device
25 or a liquid crystal panel.

14 (previously presented): The image projection system of claim
9, wherein the light source, the reflective housing, and the
invisible-light reflector form an integral structure.

Appl. No. 10/604,722
Amdt. dated April 11, 2005
Reply to Office action of January 12, 2005

15-16 (cancelled)

17 (previously presented): The image projection system of claim
5 1, further comprising an image module, wherein the image
module is a liquid crystal panel.

18 (previously presented): The image projection system of claim
10 1, wherein the invisible-light reflector is immediately
adjacent to the reflective housing along the optical path.

19 (currently amended): The image projection system of claim 9,
wherein the invisible-light reflector is immediately adjacent
to the ~~elliptic~~ reflective housing along the major axis.

15
20 (new): An image projection system comprising:
a light source for generating a light beam;
a parabolic reflective housing comprising an opening, the
parabolic reflective housing forming an accommodating
20 space, the light source installed inside the accommodating
space so that the light beam generated by the light source
substantially propagates along an optical path through
the opening away from the accommodating space; and
an invisible-light reflector installed at a reflecting
25 position intersecting with the optical path outside the
opening of the parabolic reflective housing, a normal of
the invisible-light reflector and the optical path
intersecting to form a predetermined angle so that
invisible light of the light beam emitted from the opening

Appl. No. 10/604,722
Amdt. dated April 11, 2005
Reply to Office action of January 12, 2005

will be reflected back into the accommodating space;
wherein the predetermined angle formed by the normal of the
invisible-light reflector and the optical path is an acute
angle not equal to zero degrees, so that infrared rays of the
5 light beam reflected back into the accommodating space by the
invisible-light reflector will not focus on the parabolic
reflective housing.

21 (new): The image projection system of claim 20, wherein the
10 optical path is a parallel route by which the light beam
propagates after being reflected by the parabolic reflective
housing.